OT 0 : 2005

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

in re Application of:

Lihua Li, et al.

Serial No.: 10/801,190

Confirmation No.: 1633

Filed:

March 15, 2004

For:

Adhesion Improvement for

Low K Dielectrics

Group Art Unit: 2891

Examiner:

Granvill D. Lee

MAIL STOP AMENDMENT Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450 CERTIFICATE OF MAILING 37 CFR 1.8

I hereby certify that this correspondence is being deposited on <u>September 29, 2005</u> with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450.

September 29, 2005

Date

Brian K. Hrna

Dear Sir:

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

The Applicants, and the Attorney who signs below on the basis of the information supplied by the inventor and the information in his file, submit herewith patents, publications, or other information of which they are aware, which may be material to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 CFR § 1.56.

While the information submitted in this Supplemental Information Disclosure Statement may be material pursuant to 37 CFR § 1.56, it is not intended to constitute an admission that any patent, publication, or other information referred to therein is prior art for this invention unless specifically designated as such.

In accordance with 37 CFR § 1.97, this Supplemental Information Disclosure Statement is not to be construed as a representation that a search has been made or that no other possibly material information as defined under 37 CFR § 1.56(a) exists.

10/05/2005 HLE333 00000031 200782 10801190

The patents and/or publications submitted herewith are set forth on the attached Form PTO-1449.

The Commissioner is hereby authorized to charge the sum of \$180.00 due under 37 CFR § 1.17(p) pursuant to § 1.97, and any other fee necessary to make this submission timely, to the Deposit Account No. 20-0782/APPM/008670/BKH.

Respectfully submitted,

Brian K. Hrna

Registration No. 41,852

PATTERSON & SHERIDAN, L.L.P. 3040 Post Oak Blvd. Suite 1500

Houston, TX 77056

Telephone: (713) 623-4844 Facsimile: (713) 623-4846 Attorney for Applicant(s)

398739_1

Approved for use through 07/31/2006, OMB 0651-0031 U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

September 29, 2005

information unless it displays a valid OMB control number. Under the Paperwork Reduction Act of 1995, no persons are required to 10/801,190 Debutute for form 1449A/PTO **Application Number** Filing Date March 15, 2004 SUPPLEMENTAL First Named Inventor Lihua Li, et al. OCT 0.3 200 FORMATION DISCLOSURE Group Art Unit 2891 STATEMENT BY APPLICANT **Examiner Name** Granvill D. Lee PADEMAR APPM/008670/DSM/LOW K/JW Attorney Docket Number (Use as many sheets as necessary)

Submission Date

of 10

Examiner	Cite	Document Number	Dublication Date	Name of Detector or	Pages, Columns, Lines, Where
nitials*	No. ¹	Number-Kind Code ^{2 (if known)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Relevant Passages or Relevant Figures Appear
	A1	US-3,510,369	5/5/1970	Emick, et al.	
	A2	US-4,262,631	4/21/1981	Kubacki	
	А3	US-4,532,150	7/30/1985	Endo et al.	
	A4	US-4,634,601	1/6/1987	Hamakawa, et al.	
	A5	US-4,649,071	3/10/1987	Tajima, et al.	
	A6	US-4,759,947	7/26/1988	Hishihara, et al.	
	A7	US-4,872,947	10/10/1989	Wang, et al.	
	A8	US-4,894,352	1/16/1990	Lane, et al.	
	A9	US-4,895,734	1/23/1990	Yoshida, et al.	
	A10	US-4,951,601	8/28/1990	Maydan, et al.	
	A11	US-4,981,724	1/1/1991	Hochberg, et al.	
	A12	US-5,000,113	3/19/1991	Wang, et al.	
	A13	US-5,000,178	3/19/1991	Griffith	
	A14	US-5,011,706	4/30/1991	Tarhay, et al.	
	A15	US-5,086,014	2/4/1992	Miyata, et al.	
	A16	US-5,087,959	2/11/1992	Omori, et al.	
	A17	US-5,224,441	7/6/1993	Felts, et al.	
	A18	US-5,238,866	8/24/1993	Bolz, et al.	
	A19	US-5,242,530	9/7/1993	Batey, et al.	
	A20	US-5,271,972	12/21/1993	Kwok, et al.	
	A21	US-5,298,587	3/29/1994	Hu, et al.	
	A22	US-5,298,597	3/29/1994	You, et al.	
	A23	US-5,360,491	11/1/1994	Carey, et al.	
	A24	US-5,362,526	11/8/1994	Wang, et al.	
	A25	US-5,465,680	11/14/1995	Loboda	
	A26	US-5,468,978	11/21/1995	Dowben	
	A27	US-5,480,300	1/2/1996	Okoshi, et al.	
	A28	US-5,494,712	2/27/1996	Hu, et al.	

Date Considered Examiner

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. a Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document, sKind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no.

Substitute for form 1449A/PTO

Sheet

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

10

persons are required to respond to a collection	of information unless it displays a valid OMB control number			
Application Number	10/801,190			
Filing Date	March 15, 2004			
First Named Inventor	Lihua Li, et al.			
Group Art Unit	2891			
Examiner Name	Granvill D. Lee			
Attorney Docket Number	APPM/008670/DSM/LOW K/JW			
Submission Date	September 29, 2005			
	Application Number Filing Date First Named Inventor Group Art Unit Examiner Name Attorney Docket Number			

			U.S. PATENT	DOCUMENTS	
Examiner Cite Document Number No.1		Publication Date	Name of Patentee or	Pages, Columns, Lines, Where	
Initials*	No.'	Number-Kind Code ^{2 (if known)}	MM-DD-YYYY	Applicant of Cited Document	Relevant Passages or Relevant Figures Appear
	A29	US-5,554,570	9/10/1996	Maeda, et al.	
	A30	US-5,565,084	10/15/1996	Lee, et al.	
	A31	US-5,591,566	1/7/1997	Ogawa	
	A32	US-5,607,773	3/4/1997	Ahlburn, et al.	
	A33	US-5,638,251	6/10/1997	Goel, et al.	
	A34	US-5,641,607	6/24/1997	Ogawa, et al.	
	A35	US-5,658,834	8/19/1997	Dowben	
	A36	US-5,691,209	11/25/1997	Liberkowski	
	A37	US-5,710,067	1/20/1998	Foote, et al.	
	A38	US-5,711,987	1/27/1998	Bearinger, et al.	
	A39	US-5,730,792	3/24/1998	Camilletti, et al.	
	A40	US-5,741,626	4/21/1998	Jain, et al.	
	A41	US-5,776,235	7/7/1998	Camilletti, et al.	
	A42	US-5,780,163	7/14/1998	Camilletti, et al.	
	A43	US-5,789,316	8/4/1998	Lu	
	A44	US-5,789,776	8/4/1998	Lancaster, et al.	
	A45	US-5,817,572	10/6/1998	Chiang, et al.	
	A46	US-5,817,579	10/6/1998	Ko, et al.	
-	A47	US-5,818,071	10/6/1998	Loboda, et al.	
	A48	US-5,855,681	1/5/1999	Maydan, et al.	
	A49	US-5,869,396	2/9/1999	Pan, et al.	
	A50	US-5,876,891	3/2/1999	Takimoto, et al.	
	A51	US-5,926,740	7/20/1999	Forbes, et al.	
	A52	US-5,976,979	11/2/1999	Chen	
	A53	US-5,989,998	11/23/1999	Sugahara, et al.	
	A54	US-6,045,877	4/4/2000	Gleason, et al.	

Date Considered Examiner

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. a Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. sKind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Approved for use through 07/31/2006. OMB 0651-0031

APPM/008670/DSM/LOW K/JW

Granvill D. Lee

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449A/PTO

Application Number 10/801,190

Filing Date March 15, 2004

SUPPLEMENTAL First Named Inventor Lihua Li, et al.

INFORMATION DISCLOSURE Group Art Unit 2891

Examiner Name

Attorney Docket Number

(Use as many sheets as necessary)

Sheet 3 of 10 Submission Date September 29, 2005

			U.S. PATENT	DOCUMENTS	
Examiner Cite Document Num		Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where
Initials*	No. ¹	Number-Kind Code ^{2 (f known)}	MM-DD-YYYY	Applicant of Cited Document	Relevant Passages or Relevant Figures Appear
	A55	US-6,051,321	4/18/2000	Lee, et al.	
	A56	US-6,054,379	4/25/2000	Yau, et al.	
	A57	US-6,057,251	5/2/2000	Goo, et al.	
	A58	US-6,060,132	5/9/2000	Lee	
	A59	US-6,068,884	5/30/2000	Rose, et al.	
	A60	US-6,071,809	6/6/2000	Zhao	
	A61	US-6,072,227	6/6/2000	Yau, et al.	
	A62	US-6,080,526	6/27/2000	Yang, et al.	
	A63	US-6,107,192	8/22/2000	Subrahmanyan, et al.	
	A64	US-6,124,641	9/26/2000	Matsuura	
	A65	US-6,140,226	10/31/2000	Grill, et al.	
	A66	US-6,147,009	11/14/2000	Grill, et al.	
	A67	US-6,153,537	11/28/2000	Bacchetta, et al.	
	A68	US-6,159,871	12/12/2000	Loboda, et al.	
	A69	US-6,242,339	6/5/2001	Aoi	
	A70	US-6,251,770	6/26/2001	Uglow, et al.	
	A71	US-6,287,990	9/11/2001	Cheung et al.	
	A72	US-6,291,334	9/18/2001	Somekh	
	A73	US-6,303,523	10/16/2001	Cheung, et al.	
	A74	US-6,312,793	11/6/2001	Grill, et al.	
	A75	US-6,316,167	11/13/2001	Angelopoulos, et al.	
	A76	US-6,331,494	12/18/2001	Olson, et al.	
	A77	US-6,340,435	1/22/2002	Bjorkman, et al.	
	A78	US-6,340,628	1/22/2002	Van Cleemput, et al.	
	A79	US-6,344,693	2/5/2002	Kawahara, et al.	
	A80	US-6,348,725	2/19/2002	Cheung, et al.	
	A81	US-6,350,670	2/26/2002	Andideh, et al.	
	A82	US-6,352,945	3/5/2002	Matsuki, et al.	

Examiner

Date Considered

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant: a Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible, a Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Examiner

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required Substitute for form 1449A/PTO

	Filing D
SUPPLEMENTAL	First Na
INFORMATION DISCLOSURE	Group A
STATEMENT BY APPLICANT	Examin

(Use as many sheets as necessary) 10

_	persons are required to respond to a collection	of information unless it displays a valid OMB control number
	Application Number	10/801,190
	Filing Date	March 15, 2004
	First Named Inventor	Lihua Li, et al.
	Group Art Unit	2891
	Examiner Name	Granvill D. Lee
	Attorney Docket Number	APPM/008670/DSM/LOW K/JW
	Submission Date	September 29, 2005

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No.1	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages or Relevant
	<u> </u>	Number-Kind Code ^{2 (if known)}	MM-DD-YYYY	Applicant of Cited Document	Figures Appear
	A83	US-6,362,091	3/26/2002	Andideh, et al.	
	A84	US-6,383,955	5/7/2002	Matsuki, et al.	
	A85	US-6,409,238	6/25/2002	Mikenis, et al.	
	A86	US-6,410,462	6/25/2002	Yang, et al.	
	A87	US-6,410,463	6/25/2002	Matsuki, et al.	
	A88	US-6,413,583	7/2/2002	Moghadam, et al.	
	A89	US-6,432,846	8/13/2002	Matsuki	
	A90	US-6,436,824	8/20/2002	Chooi, et al.	
	A91	US-6,437,443	8/20/2002	Grill, et al.	
•	A92	US-6,441,491	8/27/2002	Grill,et al.	
	A93	US-6,444,568	9/3/2002	Sundararajan, et al.	
	A94	US-6,455,445	9/24/2002	Matsuki, et al.	
	A95	US-6,465,366	10/15/2002	Nemani, et al.	
	A96	US-6,479,110	11/12/2002	Grill, et al.	
-	A97	US-6,479,409	11/12/2002	Shioya, et al.	
	A98	US-6,486,061	11/26/2002	Xia, et al.	
	A99	US-6,486,082	11/26/2002	Cho, et al.	
	A100	US-6,489,238	12/3/2002	TSUI	
•	A101	US-6,500,773	12/31/2002	Gaillard, et al.	
<u>-</u>	A102	US-6,511,903	1/28/2003	Yau, et al.	
	A103	US-6,511,909	1/28/2003	Yau, et al.	
	A104	US-6,521,300	2/18/2003	Hsieh, et al.	
	A105	US-6,521,302	2/18/2003	CAMPANA-SCHMITT, ET AL.	
	A106	US-6,528,423	3/4/2003	Catabay, et al.	
	A107	US-6,531,714	3/11/2003	Bacchetta, et al.	
	A108	US-6,532,150	3/11/2003	Sivertsen, et al.	
	A109	US-6,537,733	3/25/2003	Campana, et al.	
	A110	US-6,537,929	3/25/2003	Cheung, et al.	
	A111	US-6,541,282	4/1/2003	Cheung, et al.	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. sKind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. Applicant is to place a check mark here if English language Translation is attached.

Date Considered

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no c

Substitute for form 1449A/PTO

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary) Sheet 5 10

4	persons are required to respond to a collection	<u>o of information unless it displays a valid OMB control nu</u> mbe		
	Application Number	10/801,190		
	Filing Date	March 15, 2004		
	First Named Inventor	Lihua Li, et al.		
	Group Art Unit	2891		
	Examiner Name	Granvill D. Lee		
	Attorney Docket Number	APPM/008670/DSM/LOW K/JW		
	Submission Date	September 29, 2005		

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No.1	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ^{2 (f known)}			rigules Appeal
	A112	US-6,541,369	4/1/2003	Huang, et al.	
·	A113	US-6,541,398	4/1/2003	Grill, et al.	
	A114	US-6,548,899	4/15/2003	Ross	
	A115	US-6,555,476	4/29/2003	Olsen, et al.	
	A116	US-6,559,520	5/6/2003	Matsuki, et al.	
	A117	US-6,562,690	5/13/2003	Cheung, et al.	
-	A118	US-6,570,256	5/27/2003	Conti, et al.	
	A119	US-6,573,196	6/3/2003	Gaillard, et al.	
	A120	US-6,582,777	6/24/2003	Ross, et al.	
	A121	US-6,583,048	6/24/2003	Vincent, et al.	
	A122	US-6,583,071	6/24/2003	Weidman, et al.	
	A123	US-6,592,890	7/15/2003	Green	
	A124	US-6,593,247	7/15/2003	Huang, et al.	
	A125	US-6,593,633	7/15/2003	Jan, et al.	
	A126	US-6,593,653	7/15/2003	Sundararajan, et al.	
	A127	US-6,596,655	7/22/2003	Cheung, et al.	
	A128	US-6,605,549	8/12/2003	Leu, et al.	
	A129	US-6,624,053	9/23/2003	Passemard	
	A130	US-6,627,532	9/30/2003	Gaillard, et al.	
	A131	US-6,642,157	11/4/2003	Shioya, et al.	
	A132	US-6,645,883	11/11/2003	Yamamoto, et al.	
	A133	US-6,656,837	12/2/2003	Xu,et al.	
	A134	US-6,660,391	12/9/2003	Rose, et al.	
	A135	US-6,660,656	12/9/2003	Cheung, et al.	
	A136	US-6,660,663	12/9/2003	Cheung, et al.	
	A137	US-6,673,725	1/6/2004	Shioya, et al.	
	A138	US-6,703,302	3/9/2004	Miyajima, et al.	

Examiner **Date Considered**

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. skind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible, eApplicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Substitute for form 1449A/PTO

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no p

SUPPLEMENTAL

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary) Sheet

J	persons are required to respond to a collection.	of information unless it displays a valid OMB control number		
	Application Number	10/801,190		
	Filing Date	March 15, 2004		
	First Named Inventor	Lihua Li, et al.		
	Group Art Unit	2891		
	Examiner Name	Granvill D. Lee		
	Attorney Docket Number	APPM/008670/DSM/LOW K/JW		
	Submission Date	September 29, 2005		

U.S. PATENT DOCUMENTS					
Examiner Cite Document Number Initials* No.1			Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages or Relevant
miliais	140.	Number-Kind Code ^{2 (# known)}	MM-DD-YYYY	Applicant of Cited Document	Figures Appear
	A137	US-6,673,725	1/6/2004	Shioya, et al.	
	A138	US-6,703,302	3/9/2004	Miyajima, et al.	
	A139	US-6,730,593	5/4/2004	Yau, et al.	
	A140	US-6,734,115	5/11/2004	Cheung, et al.	
	A141	US-6,734,533	5/11/2004	Wong	
	A142	US-6,737,365	5/18/2004	Kloster, et al.	
	A143	US-6,740,539	5/25/2004	Conti, et al.	
	A144	US-6,756,323	6/29/2004	Grill, et al.	
	A145	US-6,756,674	6/29/2004	Catabay, et al.	
	A146	US-6,759,327	7/6/2004	Xia, et al.	
	A147	US-6,770,573	8/3/2004	Grill, et al.	
	A148	US-6,784,119	8/31/2004	Gaillard, et al.	
	A149	US-6,790,789	9/14/2004	Grill, et al.	
	A150	US-6,806,185	10/19/2004	Li, et al.	
	A151	US-6,806,207	10/19/2004	Huang, et al.	
	A152	US-6,844,612	1/18/2005	Tian, et al.	
	A153	US-6,849,561	2/1/2005	Goundar, et al.	
	A154	US-6,887,780	5/3/2005	Andideh,et al.	
	A155	US-6,902,440	6/7/2005	Dougan, et al.	
	A156	US-6,903,004	6/7/2005	Spencer, et al.	
•	A157	US-6,913,992	7/5/2005	Schmitt, et al.	
	A158	US-2001/0005546	6/28/2001	Cheung, et al.	
	A159	US-2002/0000670	1/3/2002	Yau, et al.	
	A160	US-2002/0054962	5/9/2002	Huang	
	A161	US-2002/0054982	5/9/2002	Deitrich, et al.	
	A162	US-2002/0093075	7/18/2002	Gates, et al.	
	A163	US-2002/0098714	7/25/2002	Grill, et al.	
	A164	US-2002/0111042	8/15/2002	Yau, et al.	

Examiner

Date Considered

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. a Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). a For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. skind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

7

Sheet

Approved for use through 07/31/2006. OMB 0651-0031

September 29, 2005

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449A/PTO	Application Number	10/801,190
	Filing Date	March 15, 2004
SUPPLEMENTAL	First Named Inventor	Lihua Li, et al.
INFORMATION DISCLOSURE	Group Art Unit	2891
STATEMENT BY APPLICANT	Examiner Name	Granvill D. Lee
(Use as many sheets as necessary)	Attorney Docket Number	APPM/008670/DSM/LOW K/JW

Submission Date

10

of

Examiner Initials*	Cite No.1	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages or Relevant	
		Number-Kind Code ^{2 (f known)}	MM-DD-YYYY	Applicant of Cited Document	Figures Appear	
	A165	US-2002/0160626	10/31/2002	Matsuki, et al.		
	A166	US-2002/0172766	11/21/2003	Laxman, et al.		
	A167	US-2002/0182894	12/5/2002	ANDIDEH, et al.		
	A168	US-2003/0001282	1/2/2003	Meynen, et al.		
	A169	US-2003/0003765	1/2/2003	Gibson, Jr., et al.		
	A170	US-2003/0022526	1/30/2003	Vyvoda, et al.		
_	A171	US-2003/0032274	2/13/2003	Daniels, et al.		
	A172	US-2003/0035904	2/20/2003	Hseih, et al.		
	A173	US-2003/0042605	3/6/2003	Andideh, et al.		
	A174	US-2003/0064154	4/3/2003	Laxman, et al.		
	A175	US-2003/0064607	4/3/2003	Leu, et al.		
	A176	US-2003/0068881	4/10/2003	Xia, et al.		
	A177	US-2003/0077916	4/24/2003	Xu, et al.		
	A178	US-2003/0089988	5/15/2003	Matsuura		
	A179	US-2003/0111730	6/19/2003	Takeda, et al.		
	A180	US-2003/0129827	7/10/2003	Lee, et al.		
	A181	US-2003/0139035	7/24/2003	Yim, et al.		
	A182	US-2003/0139062	7/24/2003	Grill, et al.		
	A183	US-2003/0194495	10/16/2003	Li, et al.		
	A184	US-2003/0198742	10/23/2003	Vrtis		
	A185	US-2003/0211244	11/13/2003	Li, et al.		
	A186	US-2003/0232495	12/18/2003	Moghadam,et al.		
	A187	US-2004/0048490	3/11/2004	Tsuji, et al.		
	A188	US-2004/0076764	4/22/2004	Forester, et al.		
	A189	US-2004/0076767	4/22/2004	Satoh, et al.		
	A190	US-2004/0096593	5/20/2004	Lukas, et al.		
	A191	US-2004/0096672	5/20/2004	Lukas, et al.		
	A192	US-2004/0155340	8/12/2004	Owada, et al.		

Examiner

Date Considered

EXAMINER: mitial if reference considered, whether or not citation is in conformance with MPEP 609. Draw time through citation if not in conformance and not considered, include copy of this form with next communication to applicant. I Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document, sKind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995 no

Substitute for form 1449A/PTO

Sheet

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

10

persons are required to respond to a c	<u>ollection of information unless it displays a valid OMB control numbe</u>
Application Number	10/801,190
Filing Date	March 15, 2004
First Named Inventor	Lihua Li, et al.
Group Art Unit	2891
Examiner Name	Granvill D. Lee
Attorney Docket Number	APPM/008670/DSM/LOW K/JW
Submission Date	September 29, 2005

	U.S. PATENT DOCUMENTS						
Examiner	Cite No.1	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear		
Initials*		Number-Kind Code ^{2 (f known)}					
	A193	US-2004/0166665	8/26/2004	Gaillard, et al.			
	A194	US-2004/0175957	9/9/2004	Lukas, et al.			
	A195	US-2004/0195693	10/7/2004	Kolster, et al.			
	A196	US-2004/0253388	12/16/2004	Kim			
	A197	US-2005/0009320	1/13/2005	Goundar, et al.			
	A198	US-2005/0026422	2/3/2005	Kim, et al.			
	A199	US-2005/0051900	3/10/2005	Liu, et al.			
	A200	US-2005/0059258	3/17/2005	Edelstein, et al.			
	A201	US-2005/0064726	3/24/2005	Reid, et al.			
	A202	US-2005/0118799	6/2/2005	Wu			
	A203	US-2005/0130405	6/16/2005	Spencer, et al.			
	A204	US-2005/0140029	6/30/2005	Li, et al.			

	FOREIGN PATENT DOCUMENTS							
Exa mine f Initia ls*		Foreign Patent Document Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T [©]		
	B1	DE 196 54 737 (Eng. Transl.)	12/30/1996	Itoh, et al.		X		
	B2	DE 199 04 311 (Eng. Abstract)	8/12/1999	Shu, et al.		X		
	B3	EP 0 613 178	2/22/1994	Michael				
	B4	EP 0 725 440	8/7/1996	Loboda, et al.				
	B5	EP 1 029 728	8/23/2000	Antonelli				
	B6	EP 1 107 303	6/13/2001	Shao, et al.				
	B7	EP 1 176 226	1/30/2002	Nemani, et al.				
	B8	EP 1 354 980	10/22/2003	Vrtis, et al.				
	B9	JP 09-008031 (Eng. Abstract)	1/10/1997	Toshiaki		X		
	B10	JP 09-320075 (Eng. Abstract)	12/09/1997	Seiji, et al.		X		
	B11	JP 09-321175 (Eng. Abstract)	12/12/1997	Seiji, et al.		X		
	B12	JP 9-237785	7/3/1997	Itoh, et al.				
	B13	WO 00/19498	4/6/2000	Huang				
	B14	WO 00/20900	04/13/2000	Bencher, et al.				
	B15	WO 01/61737	8/23/2001	Ross, et al.				
	B16	WO 99/21706	5/6/1999	Lee, et al.				
	B17	WO 99/33102	7/1/1999	Somekh				
	B18	WO 99/41423	8/19/1999	Cheung, et al.				

Date Considered Examiner

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. skind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. a Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and

submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Examiner

Approved for use through 07/31/2006, OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

September 29, 2005

Under the Paperwork Reduction Act of 1995	no bersons are recorded to respond to a conec	HOTE OF INIONIALION UNIESS IT DISCISUS A VAILO UNIT COMITO HOMBO
Substitute for form 1449A/PTO	Application Number Filing Date	10/801,190 March 15, 2004
	Filling Date	Walcii 15, 2004
SUPPLEMENTAL	First Named Inventor	Lihua Li, et al.
INFORMATION DISCLOSURE	Group Art Unit	2891
STATEMENT BY APPLICANT	Examiner Name	Granvill D. Lee
(Use as many sheets as necessary)	Attorney Docket Number	APPM/008670/DSM/LOW K/JW

Submission Date

of | 10

		PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T²
	C1	Dijkstra et al., "Optimization of Anti-Reflection Layers for Deep UV Lithography", Proceedings of SPIE Optical/Laser Microlithography, Bellingham, SPIE, vol. 1927, 1993, pages 275-286.	
· -	C2	FUKUDA, ET AL. "Highly Reliable SiOF Film Formation by ECR-CVD Using SiF2H2", Symposium on VLSI Technology Digest of Technical Papers IEEE (1996) pp. 114-115.	
	С3	Ogawa et al., "Novel ARC Optimization Methodology for KrF Excimer Laser Lithography at Low K1 Factor", <i>Proceedings of the SPIE. Optical/Laser Microlithography V,</i> vol. 1674, 1992, pages 362-375.	
	C4	Omar, M.A., "Elementary Solid State Physics: Principles and Applications," Lowell Technological Institute, Addison-Wesley Publishing Company, © 1975, Pages: 124, 125.	
	C5	PCT International Search Report dated February 11, 2000 for PCT/US99/22425.	
	C6	PCT International Search Report for PCT/US2004/006849, dated January 19, 2005 (AMAT/7838.PC)	
:	C7	PCT International Search Report for US/02/36229, dated September 3, 2003 (AMAT/6392.PC)	
	C8	PCT International Written Opinion for PCT/US2004/006849, dated January 19, 2005 (AMAT/7838.PC)	
	C9	PCT Partial International Search Report dated March 21, 2000, for PCT/US99/22317.	
	C10	PCT Partial International Search Report for PCT/US2004/006849, dated October 15, 2004 (AMAT/7838.PC)	
	C11	PCT/International Search Report for US/02/40034 dated May 19, 2003	
····	C12	TAJIMA, ET AL. "Characterization of Plasma Polymers from Tetramethysilane, Octamethylcyclotetrasiloxane, and Methyltrimethoxysilane" Journal of Polymer Science: Part A: Polymer Chemistry, Vol. 25 (1987) pp. 1737-1744.	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language

Date Considered

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Approved for use through 07/31/2006, OMB 0651-0031 U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

September 29, 2005

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

10/801,190 **Application Number** Substitute for form 1449A/PTO March 15, 2004 Filing Date SUPPLEMENTAL First Named Inventor Lihua Li, et al. INFORMATION DISCLOSURE **Group Art Unit** 2891 STATEMENT BY APPLICANT **Examiner Name** Granvill D. Lee APPM/008670/DSM/LOW K/JW **Attorney Docket Number** (Use as many sheets as necessary)

Submission Date

10

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
	C13	U.S. Patent Application No. 09/270,039, filed on March 16, 1999, Huang. (AMAT/2966.X3)	
	C14	U.S. Patent Application Serial No. 11/142,124, filed on June 1, 2005 (APPM/009516)	
	C15	Written Opinion, from PCT/US99/22424, dated April 5, 2001. (AMAT/2966.03 PC)	
	C16	Wu, et al "Advanced Metal Barrier Free Cu Damascene Interconnects with PECVD Silicon Carbide Barriers for 90/65-nm BEOL Technology", 2002 IEEE, IEDM Pages 595-598.	• • • • •

Examiner Date Considered

'EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.